REMARKS

Claims 1-17 are pending, with Claim 1 being independent. No new matter has been added.

Entry of this Response is proper under 37 C.F.R. § 1.116 because this Response: (a) places the application in condition for allowance for reasons discussed herein; (b) does not raise any new issue regarding further search and/or consideration since the Response amplifies issues previously discussed throughout prosecution; (c) does not present any additional claims without canceling a corresponding number of finally-rejected claims; and (d) places the application in better form for appeal, should an appeal be necessary. The Response is necessary because it is made in reply to arguments raised in the rejection. Entry of the Response is thus respectfully requested.

Claims 1 and 13 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Abusleme et al. (U.S. Patent No. 6,107,393) or Zolotnitsky et al. (U.S. Patent Publication No. 2001/0003124). Claims 2, 3 and 14-15 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Zolotnitsky et al. and Abusleme et al. Claim 4 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Abusleme et al. or Zolotnitsky et al. in combination with The Encyclopedia of Polymer Science and Engineering Additives. Claims 5-11 and 16-17 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Abusleme et al. or Zolotnitsky et al., in combination with The Encyclopedia of Polymer Science and Engineering Additives and Perelman (U.S. Pat. No. 4,304,713) or Buckmaster et al. (U.S. Pat. No. 5,688,457). Applicants respectfully traverse these rejections for the same reasons set forth in the February 15, 2006 Response, as well as for the additional reasons set forth below.

With respect to the "Response to Arguments" set forth in the Office Action at pages 3-6, Applicants wish to clarify a few points:

It appears that claim 1 is being interpreted as covering as polymeric composition containing one polymer of E and one polymer of CTFE (see page 3 of the Office Action). However, this interpretation is not correct. Claim 1 recites:

> A thermoprocessable polymeric ***composition comprising ethylene/chlorotrifluroethylene copolymers*** consisting essentially of ethylene and chlorotrifluoroethylene and containing from 0.5 to 20% by moles of ethylene, optionally in combination with the chlorotrifluoroethylene homopolymer, wherein the composition contains in total from 90 to 99.5% by moles of chlorotrifluoroethylene and from 0.5 to 10% by moles of ethylene; said polymeric composition having a second melting temperature (TmII) higher than 185°C.

From the above, it is apparent that the claimed invention is directed to a polymeric composition formed by copolymers formed essentially by ethylene and chlorotrifluoroethylene monomers, namely E/CTFE copolymers which are obtained by copolymerizing E with CTFE, as explained in the February 15, 2006 Response at page 3, first paragraph, where it is stated that the claims are directed to an "E/CTFE polymeric composition comprising polymers of ethylene and chlorotrifluoroethylene . . .".

By using the term "composition of polymers," the Applicants have tried to explain that the present polymeric composition is formed by the E/CTFE copolymers having a content of E from 0.5 to 20%, *i.e.*, different amounts of E, such that the composition contains ethylene in an amount lower than 10%.

The present E/CTFE polymeric composition containing a total amount of E lower than 10% can be obtained in several different ways: (1) by using one E/CTFE polylmer having polymeric chains of different contents of E in the range 0.5 – 20%, as obtained in

accordance with the process described in the specification, at page 7, first paragraph, which provides E-rich fractions and E-poor fractions, thereby resulting in a total content of E lower than 10%; (2) by using two different E/CTFE fractions prepared separately and having a prefixed constant E content selected from the range 0.5-20%, where one fraction is different from the other fraction because it is obtained in accordance with the process described on page 7, third paragraph, thereby resulting in a total content of E lower than 10%; or (3) by using one E/CTFE polymer having the chains with the same content of E and lower than 5%, that is obtained in accordance with the process of page 8, first paragraph. All of the compositions resulting from the above processes are included within the scope of claim 1.

Furthermore, the wording of claim 1 does not exclude the case where two compositionally different E/CTFE polymers having an E content in the range of 0.5-20%, as prefixed values or as enriched chains and poor chains, are used in the composition, provided that they give an E/CTFE polylmeric composition containing in total an amount of E lower than 10%.

While Applicants agree that the E/CTFE copolymers of Abusleme et al. and Zolotnisky et al. may contain as low as 10% by weight of E, as in the instant case, it is respectfully noted that Abusleme et al. and Zolotnisky et al. do not disclose or suggest either (1) one E/CTFE polymer having polymeric chains of different contents of E in the range 0.5-20%, resulting in a total content of E lower than 10%; or (2) a composition of two different fractions prepared separately, each having a prefixed constant E content selected from the range 0.5-20%, but where one fraction is different from the other fraction resulting in a total content of E lower than 10%.

Abusleme et al. and Zolotnisky et al. disclose E/CTFE polymers containing as low as 10% by weight of E wherein the polymer chains have the same E content, since the polymer is prepared by a polymerization method which provides a constant feed of ethylene during the polymerization.

Applicants have found that an E/CTFE polymer wherein the polymeric chains have the same E content and the total amount of E is from 5% to 10% show a lower second melting temperature (TmII), generally lower than 185°C, as compared to an E/CTFE polymer having the same total amount of E but having polmeric chains with different E contents.

To this end, see the TmII of 205.9°C of the Example 4 composition, which contains in total 5.7% of E, and is formed by E/CTFE copolymers containing E in the range of 0.5-20% (said compositions being obtained according to one of the processes of the present invention) – in comparison with the second melting temperature (179.8°C) of the E/CTFE copolymer of Comparative Example 10, which contains substantially the same total amount of E (5.1%), but contains polymer chains having equal content of E and prepared according to the polymerization process of Abusleme et al./Zolotnisky et al. (a constant feed of ethylene during the polymerization).

When the total amount of E is higher than 5% and lower than 10%, the present polymeric compositions are prepared by using, for example, one of the processes described in the present specification which give E/CTFE fractions having content of E ranging from 0.5 to 20%, wherein some fractions are E-rich and others have a poor content of E (see page 7 of specification).

In contrast, the polymer of Abusleme et al. has 10% total E, and is obtained by the conventional polymerization process for preparing E/CTFE, which gives a polymeric fraction having the same E content since the ethylene feeding is constant in time.

Furthermore, the E/CTFE polymers containing as low as 10% by weight of E of Abusleme et al. and Zolotnisky et al. are terpolymers, since containing a third hydrogenated monomer is an essential feature, which is not required by the claimed invention to achieve the present technical effect.

Accordingly, the terpolymer of Abusleme et al. and Zolotnisky et al. does not anticipate the present E/CTFE copolymers even when the amount of the third comonomer is as low as 0.1%.

It is respectfully noted that the present technical effect of having the same good electrical properties of P/CTFE in combination with the same good mechanical properties of E/CTFE copolymers (50/50 by moles) while avoiding the brittle behavior of P/CTFE and the low electrical properties of E/CTFE, is due to the fact that the present E/CTFE composition is formed by E/CTFE copolymers having a content of E ranging from 0.5 to 20%, wherein the total amount of E is lower than 10%.

Zolotnisky et al. and Abusleme et al. fail to disclose or suggest one E/CTFE polymer having polymeric chains of different contents of E in the range 0.5-20% resulting in a total content of E lower than 10%, or compositions having two different fractions prepared separately having a prefixed constant E content selected from the range 0.5-20% but one different from the other fraction resulting in a total content of E lower than 10%.

The present claimed polymeric composition is characterized by the following combination of features: (1) that it is formed by E/CTFE copolymers having a content of E ranging from 0.5 to 20%; (2) that it has a second melting temperature (TmII) higher than 185°C; and (3) the total amount of E is lower than 10%. These features are not disclosed or suggested by the cited prior art.

The Office Action states that the arguments regarding the TmII of E/CTFE and CTFE polymers are irrelevant. It is respectfully noted that the arguments relevant to the second melting temperature of E/CTFE and P/CTFE were made in order to clarify that one skilled in the art would not expect to achieve a lower TmII by reducing the amount of E. Indeed, as already stated, a CTFE homopolymer (PCTFE) which clearly does not contain ethylene units has a second melting temperature substantially the same as that of an equimolar E/CTFE copolymer having an equal molar amount of CTFE and E of 50% by moles. The second melting temperature TmII is not inherently linked to the amount of E, as has already been demonstrated in Comparative Example 10 in view of Example 4. Accordingly, an E/CTFE copolymer having a predominant amount of CTFE is not expected to have the claimed second melting temperature.

Conclusion

In view of the foregoing, reconsideration of the application, withdrawal of the outstanding rejections, allowance of Claims 1-17, and the prompt issuance of a Notice of Allowability are respectfully solicited.

Should the Examiner believe anything further is desirable in order to place this application in better condition for allowance, the Examiner is requested to contact the undersigned at the telephone number listed below.

In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, referencing docket number 108910-00128.

Respectfully submitted,
ARENT FOX PLLC

Dawn C. Russell
Attorney for Applicant
Registration No. 44,751

Customer No. 004372
1050 Connecticut Avenue, NW, Suite 400
Washington, DC 20036-5339
Telephone: (202) 857-6000

DCR:ksm